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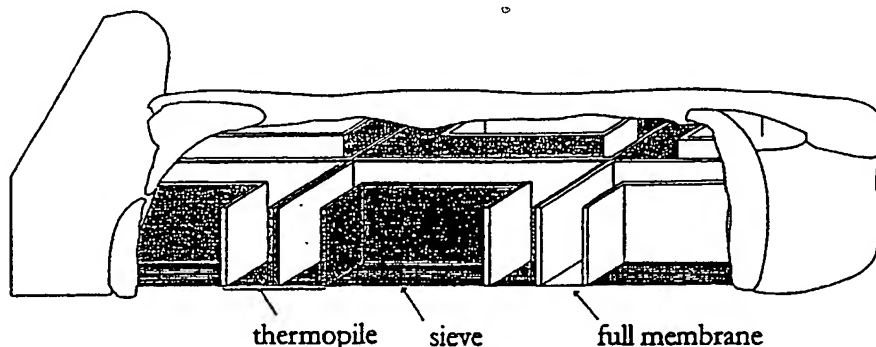
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(57) Abstract: The present invention is related to an array device for monitoring the effect of a physical or chemical stimulus on multiple small samples, said array device comprising a supporting substrate at least two array elements that are separated from each other by a isolation zone, said array elements comprising: • A receiving zone arranged to provide a contact between said one of said samples and said physical or chemical stimulus, said receiving zone having a cross-section smaller than 10 mm. • A heat detection means arranged to perform a measurement of heat between said receiving zone and a reference, and said isolation zone being formed by at least part of said supporting substrate characterised in that said supporting substrate has sufficient strength to support said array device and said isolation zone is arranged to thermally isolate said array elements.



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# INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 G01N25/48 G01K7/22 G01K17/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 G01N G01K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, INSPEC, BIOSIS

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 921 391 A (IMEC INTER UNI MICRO ELECTR) 9 June 1999 (1999-06-09)	1-4, 7, 8, 10, 11, 13, 14, 16-18, 5, 12, 15
Y	paragraphs '0002!', '0007!'-'0009!', '0020!', '0021!; figure 1	1, 6-8
X	MAYER G ET AL: "NANOTITERPLATES FOR SCREENING AND SYNTHESIS" BIOMETHODS, BIRKHAUSER, BASEL, CH, 1999, pages 75-128, XP000911754 ISSN: 1018-6255	9
X	page 105, paragraph 4.6 -page 111 page 85 -page 86 --- -/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 0 542 422 A (GEN ATOMICS) 19 May 1993 (1993-05-19) column 2, line 58 -column 3, line 51; figure 1	5,12,15
A	US 5 255 976 A (CONNELLY PATRICK R) 26 October 1993 (1993-10-26) figure 1	5,12
A	WO 95 11755 A (BEATTIE KENNETH L ;HOUSTON ADVANCED RES CENTER (US)) 4 May 1995 (1995-05-04) the whole document	9

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/BE 01/00081

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0921391	A	09-06-1999	EP 0921391 A1	09-06-1999
EP 0542422	A	19-05-1993	EP 0542422 A1	19-05-1993
US 5255976	A	26-10-1993	AU 4672393 A	31-01-1994
			EP 0649345 A1	26-04-1995
			WO 9401217 A1	20-01-1994
WO 9511755	A	04-05-1995	AU 700315 B2	24-12-1998
			AU 1043595 A	22-05-1995
			CA 2174140 A1	04-05-1995
			EP 1157743 A1	28-11-2001
			EP 0725682 A1	14-08-1996
			JP 9504864 T	13-05-1997
			WO 9511755 A1	04-05-1995
			US 5843767 A	01-12-1998